

AN - 1992-205369 [25]  
 AP - JP19900258281 19900927  
 CPY - MITV  
 DC - L02 M13 P54 P56  
 FS - CPI;GMPI  
 IC - B23B27/14 ; B23P15/28 ; C23C14/02 ; C23C14/06 ; C23C16/02 ; C23C16/30  
 MC - L02-F03 L02-F04 L02-J01E M13-H04  
 PA - (MITV) MITSUBISHI MATERIALS CORP  
 PN - JP4136174 A 19920511 DW199225 C23C16/30 004pp  
 PR - JP19900258281 19900927  
 XA - C1992-093567  
 XIC - B23B-027/14 ; B23P-015/28 ; C23C-014/02 ; C23C-014/06 ; C23C-016/02 ;  
 C23C-016/30  
 XP - N1992-155322  
 AB - J04136174 The surface coated cutting tool is made by heating a matrix  
 comprising Si-nitride-base ceramic or sialon-base ceramic, of which  
surface has been ground in N<sub>2</sub>-contg. atmos. at 1050-1400 deg.C, for  
 matrix surface modification treatment, followed by forming hard  
 coating layer by usual conditions of vapour deposition.  
 - ~~USE~~ - Used for making ceramic cutting tools coated with hard coating  
 layer.  
 IW - SURFACE COATING CERAMIC CUT TOOL PRODUCE GRIND SURFACE HIGH  
 TEMPERATURE NITROGEN@ ATMOSPHERE HEAT EFFECT SURFACE MODIFIED HIGH  
 COATING ADHESIVE  
 IKW - SURFACE COATING CERAMIC CUT TOOL PRODUCE GRIND SURFACE HIGH  
 TEMPERATURE NITROGEN@ ATMOSPHERE HEAT EFFECT SURFACE MODIFIED HIGH  
 COATING ADHESIVE  
 NC - 001  
 OPD - 1990-09-27  
 ORD - 1992-05-11  
 PAW - (MITV ) MITSUBISHI MATERIALS CORP  
 TI - Surface coated ceramic cutting tool prodn. - by grinding surface at  
 high temp. in nitrogen@ atmos., heating to effect surface modification  
 etc. for high coating adhesion

102(b) 1, 2, 5, 48, 49



XP 000191903

6001 Chemical Abstracts

106(1987)15 June, No.24, Columbus, OH, US

P. 281

C04B41/50P

106: 200705c Corrosion-resistant ceramics. Yamamoto, Hiroichi; Oguro, Takashi; Tsunoda, Hideo; Motomura, Hikari (~~Mitsubishi Heavy Industries, Ltd.~~) Jpn. Kokai Tokkyo Koho JP 62 52,192 [87 52,192] (Cl. C04B41/57), 06 Mar 1987, Appl. 85/159,734, 30 Aug 1985; 4 pp. Aluminosilicate- or zircon-based oxide films are formed on the surface of Si-contg. nonoxide ceramics TO improve their corrosion resistance. Thus, a  $\text{Si}_3\text{N}_4$  ceramic was covered with  $\text{Al}_2\text{O}_3$  powder (diam.  $0.6 \mu$ ), and heated at  $1200^\circ$  for 5 h to form a surface layer consisting of  $3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$ . When its corrosion resistance was tested with synthetic ash at  $800^\circ$ , the corrosion loss was 0.75, vs. 2.7  $\text{mg}/\text{mm}^2$  for an untreated sample.